

SAPOGOV, A. G. (Veterinarian)

"Advantages of the fight against cavitary ? gadfly of sheep by the method of hand picking."

SO: Veterinariia 24 (1), 1947, p. 41

Veterinarian of the Karakul-breeding sovkhos "Kzyl-Charvodar," Uzbek SSR

NYMM, E.M. [Nomm, E.]; SAPOGOV, A.G.; SAPAROV, S.; SHAKHMARDANOV, Z.A.,
kand.veter.nauk; GRITSENYUK, N.

Throughout the Soviet Union. Veterinariia 37 no.1:94-96 Ja '60.
(MIRA 16:6)
(Veterinary medicine) (Kovalev, Saveli Leonovich, 1911-1959)

SHESTAK, S.S., nauchnyy sotrudnik; KORENEV, G.P.; KORENEVA, T.A.;
SAPOGOV, A.G., nauchnyy sotrudnik

Use of SZHK (pregnant mare's serum). Veterinariia 37 no.1:10-12
Ja '60. (MIRA 16:6)

1. Orenburgskaya nauchno-issledovatel'skaya veterinarnaya stantsiya (for Shestak). 2. Direktor Simferopol'skoy mezhsovkhoznoy laboratorii (for Korenev). 3. Simferopol'skaya mezhsovkhoznaya laboratoriya (for Koreneva). 4. Turkmenskaya NIIZhV (for Sapogov).
(Serum therapy) (Veterinary medicine)

SAPOGOV, B.K., machinist

Improvement of the spring suspension system of a TE7 diesel locomotive. Elek. i tepl. tiaga 4 no. 12:10 D '60. (MIRA 14:1)

1. Depo Leningrad-Passazhirskiy-Moskovskiy Otktyabr'skoy dorogi.
(Diesel locomotives)

SAPOGOV, M.L., inzh.

Installation of 200 Mw. blocks in the Lugansk State Regional
Electric Power Plant. Energ. stroi. no.38:54-60 '64.
(MIRA 17:10)

1. Trest "Teploenergomontash."

SAPOGOV, M. S.

PA 55/49T57

USSR/Mathematics
Logarithms
Probability

Dec 48

"Principle of Double Logarithms for Dependent
Quantities," N. A. Sapogov, 3½ pp

"Dok Ak Nauk SSSR" Vol LXIII, No 5

Principle of double logarithms for dependent
chance quantities is demonstrated in its
basic outlines by an appropriate version of
A. N. Kolmogorov's proof of the same principle
for independent quantities and the author's
previous articles. Submitted by Acad S. N.
Bernsteyn 19 Oct 48.

55/49T57

1ST AND 2ND ORDERS										PROCESSES AND PROPERTIES INDEX										100 AND 4TH ORDERS									
<i>CA</i> SAPOGOV, Nikolay Aleksandrovich 23 The effect of elevated temperature on the properties of condenser paper. V. T. Renne and N. A. Sapogov. <i>Bumashnaya Prom.</i> 13, No. 2, 73-7 (1934).—The changes in mech. properties of all tested papers were identical on subjecting them to prolonged heating at higher temps. Papers with high contents of chem. cellulose resist heat better than the papers with high contents of mech. wood pulp. The temp. of drying of cellulose paper should not exceed 100-60°, and the drying of mech. wood-pulp paper at 100-60° should not be longer than 5-8° hrs. to prevent the lowering of elec. properties. Chas. Blanc																													
ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION															FROM SOURCE														
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in: *International Reviews* June, Vol. 1, No. 2

6. Pr. 1000 in Providence 1810

YAL 8/2

SAPOGOV, N.A.

Liapunov's limit theorem for sums of random variables forming
a Markov chain. Vest..IGU 2 no.3:137-141 Mr '47.
(MIRA 12:9)

(Chains (Mathematics))

SAPOGOV, N. A.

Sapogov, N. A. On singular Markov chains. Doklady Akad. Nauk SSSR (N.S.) 58, 193-196 (1947). (Russian)

Let $x_1, \dots, x_n$ be the random variables of a Markov chain. It is supposed that the x_i 's only take on the values ± 1 and that p_i' (p_i'') is the probability that $x_{i+1} = 1$ if $x_i = 1$ (-1). Then if $s_n = \sum_{i=1}^n x_i$, Bernstein [Doklady Akad. Nauk SSSR (N.S.) 1928, 55-60] proved that s_n is subject to the central limit theorem if $n^{-a} < p_i', p_i'' < 1 - n^{-a}$, $i = 1, \dots, n$, where $a < \frac{1}{2}$ is a constant. The author proves, using Bernstein's method, that the result is still true if n^{-a} is replaced in the above condition by $\phi(n) n^{-a}$ where $\phi(n)$ is monotone increasing and becomes infinite with n .

J. L. Dobb (Urbana, Ill.)

Source: Mathematical Reviews.

Vol 9 No. 6

Sapogov, N. A.

Sapogov, N. A. The Laplace-Lyapunov limit theorem for singular Markov chains. Doklady Akad. Nauk SSSR (N.S.) 58, 1905-1908 (1947). (Russian)

Let x_n be the variable of a Markov process with possible values $a_1^{(n)}, \dots, a_{k_n}^{(n)}$, where k_n is finite. It is assumed (1) that $\xi_n = \sum_{j=1}^{k_n} p_{ij}^{(n)} a_j^{(n)}$ and $d_n^2 = \sum_{j=1}^{k_n} (a_j^{(n)} - \xi_n)^2 p_{ij}^{(n)}$ are finite and $d_n^2 > 0$, (2) the transition probabilities depend on n but $p_{ij}^{(n)} > 1/n^2 k_n$ with a constant $0 < \alpha < 1$. One has $E(x_n) = 0$ and the higher moments have bounds independent of n . Then the central limit theorem holds for the sums $s_n = x_1 + \dots + x_n$. It is shown in a few lines that this follows from S. Bernstein's now classical proof of the central limit theorem for independent variables. A similar statement holds if the x_n are functions of a finite Markov chain, if the density of transition probabilities $\phi_n(x, y)$ satisfies an inequality $\phi_n(x, y) \leq 1/n^2 L_n$ where $L_n = b_n - a_n > L > 0$.

W. Feller, Alhaca, N. Y.

Source: Mathematical Reviews

7:1

7:1

SAPOGOV, N. A.

Sapogov, N. A. On sums of dependent random variables.
Doklady Akad. Nauk SSSR (N.S.) 63, 353-356 (1948).
(Russian)

The author finds upper limits to the error in Bernstein's
version of the central limit theorem for dependent random
variables [Math. Ann. 97, 1-59 (1926)]. I. L. Dob.

Sapogov, N. A. On the law of the iterated logarithm for dependent variables. Doklady Akad. Nauk SSSR (N.S.) 63, 487-490 (1948). (Russian)

The author shows that under Bernstein's conditions for the validity of the central limit theorem for dependent random variables [Math. Ann. 97, 59 (1926), § 10] the law of the iterated logarithm also holds. He uses a form of the central limit theorem with error estimate found by him in an earlier paper [same Doklady (N.S.) 63, 353-356 (1948); these Rev. 10, 310].

J. L. Doob.

Source: Mathematical Reviews,

7-1 10 No. 6

Sapogov, N. A.

Sapogov, N. A. An integral limit theorem for multidimensional Markov chains. Uspehi Matem. Nauk (N.S.) 4, no. 4(32), 190-192 (1949). (Russian)

The author states conditions under which the central limit theorem is valid for a sequence of random variables $X_1, X_2, \dots$ forming a Markov chain. The chain is of a very general nature: X_n is a vector-valued random variable which can assume k_n values, and the transition probabilities from X_n to X_{n+1} depend on m . The conditions are that the m th transition probabilities are bounded below by a constant multiple of $1/k_n$, that X_n are bounded uniformly in m , and that the X_n 's are not too near to be identically constant, in a sense made precise in the paper. Various specializations are made.

J. L. Doob (Ithaca, N. Y.).

Mathematical Reviews,

Vol. 11 No. 3

John Doe

Sapogov, N. A.
Sapogov, N. A. On the strong law of large numbers.
~~Uspehi Matem. Nauk (N.S.)~~ 4, no. 4(32), 194-195 (1949).
(Russian)

The author generalizes Kolmogorov's version of the strong law of large numbers for mutually independent random variables, expressed in terms of variances, by dropping the hypothesis of independence and replacing it by imposing appropriate bounds on the relevant conditional probabilities.

Source: Mathematical Reviews.

Vol 11 3

Sapogov, N. A. On the law of the iterated logarithm for Markov chains. Uspehi Matem. Nauk (N.S.) 4, no. 432-195-196 (1949). Russian.

The author states various hypotheses under which the law of the iterated logarithm holds for Markov processes. For example, (1) it holds for a Markov chain if the m th transition probability is bounded from below by constant k_m , where k_m is the possible number of states at the m th step of the possible values assumed at the m th step are bounded uniformly in m , and if a condition is fulfilled which is satisfied by a possible value at the m th step, then for $n \rightarrow \infty$ the probability of the event that the Markov chain will not pass beyond the n th step is equal to 1. The author also states various hypotheses under which the law of the iterated logarithm holds for a Markov process with continuous time. The author also states various hypotheses under which the law of the iterated logarithm holds for a Markov process with continuous time. The author also states various hypotheses under which the law of the iterated logarithm holds for a Markov process with continuous time.

Journal of the American Statistical Association, 1967, vol. 62, no. 318, pp. 10-12.

Hull Math Soc. Route No. 39, no. 1, 57-115, no. 2, 3-61
1937. *U. S. District Court N. Y.*

1937-1938 *J. L. Davis, Librarian & A.*

JG:1 307 3

ŠAPOGOV, N.A.

24737. ŠAPAGOV, N.A. Dvumernaua Predel'naya Tedrema Dlya Dvumernoy Tsepi.

Izvestiya Akad Nauk Sssr, Seriya Matem., 1949, No. 4, S. 301-14--Bibliogr: 5 Nazv.

SO: Letopis' No. 33, 1949

SAPOGOV, N.A. i. LIMNIK, YU V.

28196

Ob integral'nom i lokal'nom zakonakh dlya mnogomernoy nyesodnorodnoy tsyepi
markova - V. o. 1. 2 - Y avt: a.n. Sapogov. Doklady akad. nauk UzSSR, 1949
No. 6, s. 7-10 - Ryezyumye na u-byek-Yaz. - Bibliogr: 5 nazv.

SO. LETOPIS NO. 34

SAPCCCV, N.A.

60/49T52

USSR/Mathematics

Probability

Jul/Aug 49

"A Two-Dimensional Boundary Theorem for a Two-Dimensional Chain," N. A. Sapogov, 14 pp.

"Iz Ak Nauk SSSR, Ser Matemat" Vol XIII, No 4

Consideration of a stochastic arrangement which is a two-dimensional analogue of Markov's simple chain. Establishes the applicability of the two-dimensional boundary theorem to two sums of chance values forming a two-dimensional chain and makes an assumption relative to the probabilities of transition which permits their approximation as close to zero and one as is necessary. Submitted 22 Nov 47.

60/49T52

Linnik, Yu. V., and Sapogov, N. A. Multiple integrals and local laws for inhomogeneous Markov chains. Izvestiya Akad. Nauk SSSR. Ser. Mat. 13, 533-566 (1949). (Russian)

In the first part of the paper Sapogov proves the central limit theorem for a sequence of k -dimensional vectors whose values depend on the states of a discrete Markov chain. The number of states is supposed to be finite, but may vary with time. Various uniformity conditions are imposed on the transition probabilities so that S. Bernstein's classical results can be used. [The essential part of the results was announced in Uspehi Matem. Nauk (N.S.) 4, no. 4(32), 190-192 (1949); these Rev. 11, 189. Cf. also Doklady Akad. Nauk SSSR (N.S.) 58, 193-196, 1905-1908 (1947); these Rev. 9, 293, 361.] In the second part Linnik considers a Markov chain with $k+1$ states $e_1, e_2, \dots, e_{k+1}$, and stationary transition probabilities. For $1 \leq i \leq k$ let $N_i(n)$ be the number of passages during the first n trials through e_i . It is supposed that the chain belongs to the type A of Doeblin's classification which means essentially that the variance of each $N_i(n)$ tends to infinity together with n . It is shown that the joint distribution of $N_i(n)$ is asymptotically normal. The proof is exceedingly complicated and depends on intricate estimates.

W. Feller (Princeton, N. J.)

Source: Mathematical Reviews, 1950 Vol 11 No. 8

SAPOGOV, N. A.

33019

OB odnoy Predel'noy teoreme doklady Akad. Nauk Sssr, Novaya seriya, T, lxxix, No 1,
1949, c. 15-18

SO: Letopis' Zhurnal'nykh Statey, Vol. 45, Moskva, 1949

~~SAPOGOV N.A.~~

Source: "International Reviews

Vol 11 No 4

27. 11. 22

SAPOGOV, N. A. On the law of large numbers for dependent
random variables. Izvestiya Akad. Nauk SSSR. Ser.
Mat. 14, 145-154 (1950). (Russian)

Consider a triangular array of random variables X_{nk} , $k=1, \dots, n$, $n=1, 2, \dots$. The law of large numbers applies to such a sequence of random variables if and only if the following conditions are satisfied: $\lim_{n \rightarrow \infty} \frac{1}{n} \sum_{k=1}^n \text{Var}(X_{nk}) = 0$ and $\lim_{n \rightarrow \infty} \frac{1}{n} \sum_{k=1}^n \text{Cov}(X_{nk}, X_{nk}) = 0$.

Source: Mathematical Reviews, 1950 Vol 11 No. 8

Sapogov, N. A. General form of a limit theorem for independent random vectors. Doklady Akad. Nauk SSSR (N.S.) 70, 765-768 (1950). (Russian)

The author extends the standard necessary and sufficient conditions for the validity of the central limit theorem (for sums of mutually independent random variables) to vector-valued random variables. J. I. Doob (Ithaca, N. Y.)

Source: Mathematical Reviews, 1951 Vol. 11 No. 2

Sapogov, N. A.

Sapogov, N. A. On a property of the Gaussian distribution

Doklady Akad. Nauk SSSR (N.S.) 73, 461-462
(1950). (Russian)

A proof of the following theorem is sketched. Suppose that the distribution function F of the sum of two mutually independent random variables satisfies the inequality $|F(x) - \Phi(x)| < \epsilon < 1$ for all x , where Φ is the normal distribution function with mean 0 and variance 1. Let F_1 be the distribution function of either summand and suppose that $a_1 = \int_{-\infty}^{\infty} x dF_1(x)$ and that $\sigma_1^2 = \int_{-\infty}^{\infty} x^2 dF_1(x) - a_1^2 > 0$, where $N = (\log 1/\epsilon)^4$. Then there is an absolute constant C for which $|F_1(x) - \Phi((x - a_1)/\sigma_1)| < C\sigma_1^{-1/2}(\log 1/\epsilon)^{-N}$ for all x . This theorem generalizes Cramér's theorem [Math. Z. 41, 405-414 (1936)] that, if the sum of two mutually independent random variables is normally distributed, each summand also has this property.

J. L. Doob.

Source: Mathematical Reviews,

Vol 12, No. 3

Sapogov

SAPOGOV, N. A.

"Some Problems in the Theory of Dependent and Multidimensional Chance Quantities." Sub 14 Jun 51, Mathematics Inst imeni V. A. Steklov, Acad Sci USSR.

Dissertations presented for science and engineering degrees in Moscow during 1951.

SO: Sum. No. 480, 9 May 55.

SAPOGOV, N. A.

Sapogov, N. A. On an inequality of Čebyšev. Uspehi
Matem. Nauk (N.S.) 6, no. 7(42), 157-159 (1951).
(Russian)

The inequality of Čebyšev.

$$(e) \int_a^b u(x)v(x)dx \leq \frac{1}{b-a} \int_a^b u(x)dx \int_a^b v(x)dx,$$

holds for nondecreasing real functions $u(x)$, $v(x)$; it has been generalized on various occasions (for example by F. Franklin [Amer. J. Math. 7, 377-379 (1885)]), as noted by the author. There are now given still wider generalizations, as suggested by the following simple proof: There is clearly a value c , $a \leq c \leq b$, such that the function

$$Q(x) = v(x) - \frac{1}{b-a} \int_a^b v(t)dt$$

satisfies $Q(x) \geq 0$, $a \leq x \leq c$; $Q(x) \leq 0$, $c \leq x \leq b$; hence

$$\int_a^b u(x)Q(x)dx = \int_a^c u(x)Q(x)dx + \int_c^b u(x)Q(x)dx \leq \int_a^c u(x)Q(x)dx \leq 0,$$

from which it follows. It is shown, for instance, that for integrable real functions u, v defined on a set E , if c denotes the part of E for which

$$v(x) \geq \frac{1}{\mu(E)} \int_E v(x)d\mu,$$

and if $u(x) \geq u(x')$ for all x in c and all x' in E , then

$$\int_E u(x)v(x)d\mu \leq \int_E u(x) \left(\frac{1}{\mu(E)} \int_E v(x)d\mu \right) d\mu.$$

A more immediate generalization of (*) is the special case $w=1$. Again, an inequality of Jensen [Bull. Sci. Math. (2) 12, 134-135 (1888)].

$$\sum_{i=1}^n u_i v_i \leq \sum_{i=1}^n u_i \bar{v}, \quad \sum_{i=1}^n v_i \bar{u},$$

for $3n$ positive quantities satisfying $u_1 \geq u_2 \geq \dots$ and $v_1/v_2 \geq v_3/v_4 \geq \dots$ is contained in (**).

E. F. Beckenbach (Princeton, N. J.).

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Source: Mathematical Reviews,

Vol. 3 No. 3

SAPOGOV, N. A.

USSR/Mathematics - Probability

May/Jun 51

"Problem of Stability for Cramer's Theorem," N. A. Sapogov

"Iz Ak Nauk SSSR, Ser Matemat" Vol XV, No 3, pp 205-218

Proves that each of the chance (stochastic) quantities X_1 and X_2 , whose sum is approximately distributed normally while admitting of definite form of interconnection, also approximately obeys the normal law. Evaluates deg of this approximation. Submitted by Acad S. N. Bernshteyn 24 Apr 50

186T49

SAPOGOV, N. A.

USSR/Mathematics - Statistics

FD-1175

Card 1/1 Pub. 118-16/30

Author : Sapogov, N. A.

Title : Mutual distribution of lines of regression

Periodical : Usp. mat. nauk, 9, No 3(61), 187-192, Jul-Sep 1954

Abstract : The author establishes for the first time some new results, demonstrated in an elementary way, on the mutual distribution of regression lines. He then discusses the results of O. V. Sarmanov on lines of regression for correlation formed by two chance quantities X and Y, demonstrated by means of the theory of integral equations. The author frees O. V. Sarmanov's proof of the theory of integral equations. Four references, all USSR (all articles by O. V. Sarmanov in Doklady Akad. Nauk SSSR, 1948-1952).

Institution :

Submitted : November 6, 1953

SAPOGOV, N. A.

Sapogov, N. A. The problem of stability for a theorem of Cramér's. Vestnik Leningrad. Univ. 10 (1955), no. 1, 61-64. (Russian)

Let X_1, X_2 be independent random variables with sum X . Let X have distribution function F , suppose that X_1 has median 0, and suppose that $\sup_x |F(x) - \Phi(x)| \leq \varepsilon < 1$, where Φ is the normal distribution function of mean 0 and variance 1. Then

$$\sup_x \left| F_1(x) - \Phi\left(\frac{x-a_1}{\sigma_1} \right) \right| < \frac{C}{\sigma_1^3 (\ln \varepsilon^{-1})^{\frac{1}{2}}}$$

Here C is an absolute constant, a_1 and σ_1^2 are the mean and variance of X_1 after X_1 is replaced by 0 for values of the modulus $\geq N$, where N depends on ε , and it is supposed that $\sigma_1 \neq 0$. This result, whose proof is sketched, improves a previous generalization of the Cramér theorem by the author [Izv. Akad. Nauk SSSR. Ser. Mat. 15 (1951), 205-218, MR 13, 51]. If the random variables are n -dimensional vector-valued, the following weaker result is stated. If R is an n -dimensional interval with edges parallel to the coordinate axes, suppose that

$$\sup_R |P\{X \in R\} - G(R)| \leq \varepsilon < 1,$$

where G is some non-degenerate normal distribution. Then, if X_1 has a non-degenerate distribution, there is a normal distribution G_1 , satisfying

note

1/2

Сапогов, Н. А.

$$\sup_R |P\{X_1 \in R\} - G_1(R)| \leq C \left(\ln \ln \frac{1}{\varepsilon} \right) \left(\ln \frac{1}{\varepsilon} \right)^{-1/(n+1)}.$$

Here C is a measure of the non-degeneracy of X_1 .

J. L. Doob (Urbana, Ill.).

2/2

SAPOGOV, N A

SUBJECT USSR/MATHEMATICS/Theory of approximations CARD 1/2 PG - 454
 AUTHOR SAPOGOV N.A.
 TITLE On the best approximation of analytic functions of several variables and on polynomial series.
 PERIODICAL Mat.Sbornik, n. Ser. 38, 331-336 (1956)
 reviewed 12/1956

The following generalization of a theorem due to Bernstein is proved: In order that the function $f(z_1, \dots, z_k)$ is regular in all inner points of the elliptic polycylinder $C_R \left[|z_i + \sqrt{z_i^2 - 1}| \leq R, i=1, 2, \dots, k \right]$ and in order that it possesses singularities in the points in which each coordinate z_i belongs to the boundary of the corresponding ellipse $C_R^{(i)} \left[|z_i + \sqrt{z_i^2 - 1}| = R, 1 \leq i \leq k \right]$, it is necessary and sufficient that

$$\lim_{n \rightarrow \infty} \sqrt[n]{E_n[f]} = \frac{1}{R}, \quad E_n[f] = \inf_{P_n} \max_{\substack{-1 \leq x_i \leq 1 \\ 1 \leq i \leq k}} |f - P_n|.$$

The proof bases on the following lemma: Let the polynomials $P_n(x_1, \dots, x_n)$ of

Mat. Sbornik, n. Ser. 38, 331-336 (1956)

CARD 2/2

PG - 454

degree n be bounded for all n at $-1 \leq x_i \leq +1$ ($i=1,2,\dots,k$) : $|P_n| \leq L$. Then inside of G_R holds: $\lim_{n \rightarrow \infty} \sqrt[n]{|P_n(z_1, \dots, z_k)|} \leq R$. A similar inequation of Bernštejn is used to prove a similar theorem on polynomial series.

INSTITUTION: Leningrad.

16(1), 16(2)

AUTHOR: Sapogov, N.A.

SOV/43-59-19-8/14

TITLE: On Independent Random Variables the Sum of Which is Approximately Normal

PERIODICAL: Vestnik Leningradskogo universiteta, Seriya matematiki, mekhaniki i astronomii, 1959, Nr 19(4), pp 78-105 (USSR)

ABSTRACT: Theorem 1: Let $X_i = (X_i^1, \dots, X_i^n)$, $i=1,2$, be independent random vectors, where zero is a median of every component X_i^k , $1 \leq k \leq n$; $X = X_1 + X_2$. Let $\bar{X} = (\bar{X}^1, \dots, \bar{X}^n)$ be a normally distributed vector for which

$$M\bar{X}^k = 0, 1 \leq k \leq n; \min_{|t|=1} D\left(\sum_{i=1}^n t^i \bar{X}^i\right) \geq \sigma > 0.$$

Let $\sup_I |P_X(I) - P_{\bar{X}}(I)| \leq \epsilon$, where $0 < \epsilon < 1$ and sup is taken over all right parallelepipeds I the edges of which are parallel to the axes; $P_Z(S) = P\{Z \in S\}$. Then

$$(13.3) \quad \sup_I |P_{X_1}(I) - P_{\bar{X}_1}(I)| < C \frac{[\ln \ln(\frac{1}{\epsilon} + 2)]^{\frac{3}{2}n-1}}{\sigma_1^3 (\ln \frac{1}{\epsilon})^{1/2}}.$$

Card 1/2

On Independent Random Variables the Sum of Which is Approximately Normal SOV/43-59-19-8/14

Here $C = C(n, \bar{\sigma})$ is a constant, $\bar{X}_1 = (\bar{X}_1^1, \dots, \bar{X}_1^n)$ is a normally distributed vector with $M\bar{X}_1^k = M\bar{X}_1^{*k}$; $M(\bar{X}_1^k \cdot \bar{X}_1^1) = M(X_1^{*k} \cdot X_1^{*1})$; $1 \leq k, 1 \leq n$, $\bar{\sigma}_1^2 = \min_{|t|=1} D\left(\sum_{i=1}^n t^i X_1^{*i}\right) > 0$, while $X_1^* = (X_1^{*1}, \dots, X_1^{*n})$ is an auxiliary vector defined as follows: for every $k=1, 2, \dots, n$ we have

$$\begin{aligned} X_1^{k*} &= X_1^k \text{ if } |X_1^k| \leq N \\ X_1^{k*} &= 0 \text{ if } |X_1^k| > N \end{aligned} \quad N = \sqrt{2 \ln \frac{1}{\varepsilon}} + 1.$$

Theorem 2 shows that in the case $n=1$ the right hand side of (13.3) has to be replaced by

$$C \bar{\sigma}_1^{-3} \left(\ln \frac{1}{\varepsilon}\right)^{-\frac{1}{2}}.$$

The author mentions S.N. Bernshteyn.

There are 6 references, 3 of which are Soviet, and 3 Swedish.

SUBMITTED: November 17, 1958

Card 2/2

SAPOGOV, N.A.

Strengthening Lozinskii - Kharshiladze's theorem on polynomial approximations. Dokl. AN SSSR 143 no.1:53-55 Mr '62.
(MIRA 15:2)

1. Predstavleno akademikom S.N.Bernshteynom.
(Polynomials)

SAPOGOV, N.A.

Norms of linear polynomial operators. Dokl. AN SSSR 143 no.6:
1286-1288 Ap '62. (MIRA 15:4)

1. Predstavleno akademikom V.I.Smirnovym.
(Operators (Mathematics)) (Functions, Continuous)

SAPOGOV, N.A.

Evaluation from below of the approximation of continuous
functions by linear positive operators. Vest. LGU 17 no.19:49-
55 '62. (MIRA 15:10)
(Functions, Continuous)

SAPOGOV, N.A. doktor fiziko-matem. nauk, prof.; ZOLOTNIKOV, I.M.,
kand.tekhn.nauk, dotsent; SYSOYEV, P.V., aspirant

Investigating the shape of rolling stock wheel surfaces processed
by the method of face milling. Sbor.trud. LIIZHT no.197:58-70
'62. (MIRA 16:8)

(Car wheels—Testing)

SAPOGOV, N.A.

Norms of linear polynomial operators in relation to problems
of approximation of continuous functions. Part 2. Vest. LGU
19 no.19:72-75 '64. (MIRA 17:11)

SAPOGOV, N.A.

Norms of linear polynomial operators in connection with
problems of the approximation of continuous functions. Vest.
LGU 19 no.13:53-68 '64 (MIRA 17:8)

KAZANCHIKOVA, Y.I.; PANCHENKO, A.A.; SAFOGOV, N.V.; TROFIMOVA, L.I.

Absorption of metal ions by carboxyl base exchanging compounds
in the form of hydrogen. Izv. vys. ucheb. zav.; tsvet. met.
8 no.5:43-48 '65. (MIRA 18:10)

1. Ural'skiy politekhnicheskiy institut.

SOBOLEVA, T.A.; SUSLOV, A.P.; SAPOGOV, N.V.

Fractional reaction for thorium and uranium ions. Trudy Ural.politekh.
inst.no.121871-75 '62.

(MIRA 16:5)

(Thorium--Analysis)

(Uranium--Analysis)

L 08457-67 EWT(m)/EWP(j) DS/WW/RM
 ACC NR: AP6030901 (N) SOURCE CODE: UR/0080/66/039/008/1793/1798
 AUTHOR: Kazantsev, Ye. I.; Sapogov, N. V. 31 B
 ORG: Ural Polytechnic Institute imeni S. M. Kirov (Ural'skiy politekhnicheskii institut)
 TITLE: Sorption of certain metal ions by phosphorylated cellulose
 SOURCE: Zhurnal prikladnoy khimii, v. 39, no. 8, 1966, 1793-1798
 TOPIC TAGS: sorption, cation, ion exchange, cellulose plastic
 ABSTRACT: The sorption of various metal ions from nitric acid solutions was studied at 16-18°C, using a phosphorylated cellulose cation exchanger. The latter is shown to sorb ions of bismuth, tin (II), iron (III), thorium, aluminum and beryllium from their nitric acid solutions in amounts exceeding the exchange capacity, and ions of cerium (III), copper, nickel and magnesium in amounts comparable to the exchange capacity of the cation exchanger. It was found that the high sorbability of Bi, Fe, Sn(II), Th, Al and Be ions from solutions with HNO₃ concentrations less than 0.5-1 N is due to their sorption in the form of hydroxo complexes. The sorbability values obtained for the metal ions are best accounted for by assuming that they sorbed in the form of the respective complexes Th[(OH)₃Th]⁽⁴⁺ⁿ⁾⁺ and Th[(OH)₄Th]⁴⁺, Bi[(OH)₃Bi]³⁺, Fe[(OH)₂Fe]⁽³⁺ⁿ⁾⁺ and Fe[(OH)₃Fe]³⁺, Sn[(OH)₂Sn]²⁺, Al[(OH)₃Al]²⁺ and Be[(OH)₂Be]²⁺. Thorium ions are sorbed from 0.5-3 N HNO₃ in the form of the complexes Th(NO₃)₂²⁺ and

Card 1/2 UDC: 541.183+661.728

L 08457-67

ACC NR: AP6030901

$\text{Th}(\text{NO}_3)_3^+$. The sorption of ions by phosphorylated cellulose from 0.5-2 N HNO_3 solutions increases with increasing capacity of the ions to form sparingly soluble or stable phosphate complexes with the phosphate groups of the cation exchanger. The use of phosphorylated cellulose is recommended for removing Bi, Sn(II), Fe, Al and Be ions from ions of other metals. Orig. art. has: 4 figures and 1 table.

SUB CODE: 07/ SUBM DATE: 14Jul64/ ORIG REF: 013/ OTH REF: 006

Cord

2/2 *2/2*

L 10876-67 EWT(1) SCTB DD
ACC No: AP6035943 /✓/

SOURCE CODE: UR/0413/66/000/020/0204/0204

INVENTOR: Tyurin, V. I.; Klepatskiy, A. G.; Kolyadina, L. A.; Kitayev, Yu. V.;
Sapogov, S. V.

ORG: none

TITLE: Breathing device for divers working at constant depths. Class 65,
No. 187553

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 20, 1966,
204

TOPIC TAGS: water, air, respirator, diving mask, naval physiology

ABSTRACT: An Author Certificate has been issued for a breathing device for
divers working at constant depths. It consists of a housing with a mask and
inhaling and exhaling valves; it is connected to the breathing bag of the device
regulating the required gas volume. The breathing bag has a bleeder valve joined
to a regenerative cartridge containing a chemical substance, and to a cartridge
containing a chemical absorbent. To insure that the diver can remain under water
at constant depths for a long period, the component regulating the required gas

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UDC: 629.128.2/7 614.894

L 10376-67
ACC NR: AP6035943

volume in the breathing bag is in the form of a housing with channels. The housing is joined to the exhalation tube by a regenerative cartridge and a cartridge containing a chemical absorbent. The housing contains a valve rest contacting an elasticized membrane mounted inside the housing and attached to the elastic walls of the breathing bag by flexible trip rods. The housing automatically distributes the flow of exhaled gas to the regenerative and absorbent cartridges. Orig. art. has: 1 figure. [Translation] [N-67-2]

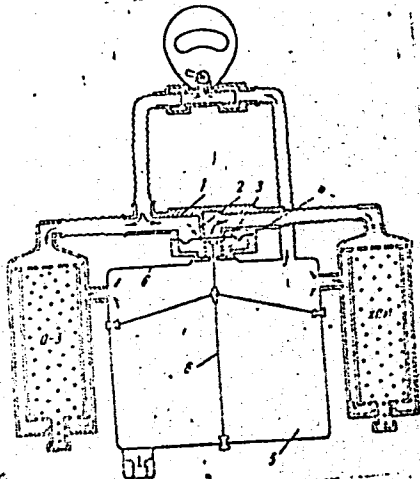


Fig. 1. Breathing device for divers.
1—Housing of device regulating required gas volume; 2—valve rest; 3—membrane; 4—spring; 5—breathing bag; 6—elastic trip rods

SUB CODE: 06/SUBM DATE: 13Jan65/

Card 2/2

LEYN, S.; SOLOVEY, M.; SAYDASHEV, G.; SAPOGOVA, A.; STOROZHENKO, G.,
red.

[Introduction of the continuous line method for the processing of fabrics in the finishing workshops of the "Rigas tekstils" Woolen and Worsted Factory. Application of ultrasonic waves in the cooking of oil lacquer for leather manufacture. [By] G. Saidashev. Improving the quality of chrome leather straps for the drafters of spinning machinery. [By] A. Sapogova] Vvedenie lentochnogo metoda obrabotki tkani v otdelochnoe proizvodstvo na kamvol'no-sukonnoi fabrike "Rigas tekstils." Primenenie ul'trazvuka v tekhnologii varki maslianogo leka dlia kozhevennogo proizvodstva. [By] G. Saidashev. Povyshenie kachestva khromovykh remeshkov dlia vytiazhnykh priborov priadil'nykh mashin; legkai' promyshlennost'. [By] A. Sapogova. Riga, TSentr. biuro tekhn. informatsii, 1962. 13 p. (MIRA 17:10)

SAPOGOVA, A. A.

"Spotted Diseases of Canker-Resistant Potato Varieties and the Development of Measures to Control Them in the Belorussian SSR." Cand Agr Sci, Department of Biological and Agricultural Sci, Acad Sci Belorussian SSR, Minsk, 1953. (RZnBiol, No 7, Dec 54)

Survey of Scientific and Technical Dissertations Defended at USSR Higher Educational Institutions (12)
SO: Sum. No. 556, 24 Jun 55

SAPOGOVA, A.A.

N

USSR / Plant Diseases. Diseases of Cultivated Plants.

Abs Jour : Ref Zhur - Biologiya, No 16, 25 Aug 57, 69542

Author : Sapogova, A.A.

Title : The Effect of Vernalization and Planting Periods on Destruction of Tumor-Resistant Potato Varieties by Phytofluorosis and Other Diseases.

Orig Pub : Sb. nauch. tr. In-ta sots. s. kh. AN BSSR, 1956, No 4, 231-239.

Abstract : The experiments were conducted on mineral soil in the Botanical garden, Academy of Sciences, Byelorussian SSR and on the marshy-turfy soil of Minsk marsh scientific-experimental station from 1949 to 1951. The vernalization and early planting (the first 10 days of May) of early-and-medium-ripening tumor-resisting types of potatoes markedly lowered their destruction by phytofluorosis. The increase of yield on early plantings by vernalized bulbs in mineral soils of the Majestic variety constituted 30 centners/hectare, and

SAPOGOVA, A.M.

Twist setting of French spun yarn. Izv. vys. ucheb. zav.; tekhn.
tekst. prom. no.4:51-55 '65. (MIRA 18:9)

1. Latviyskiy kompleksnyy nauchno-issledovatel'skiy institut legkoy
promyshlennosti.

T-7

USSR/Human and Animal Physiology - Digestion.

Abs Jour : Ref Zhur - Biol., No 7, 1958, 31793

Author : Sapogovskaya, T.I.

Inst :

Title : Influence of Sodium Fluoride on the Accumulation of
Radio Isotopes P³² and Ca⁴⁵ in Teeth.

Orig Pub : Tr. Ykr. in-ta stomatol., 1957, vyp. 2, 40-45.

Abstract : No abstract.

Card 1/1

SAPOGOVSKAYA, T.I., Cand Biol Sci -- (diss) "Certain
biochemical and physiological indicators in the teeth
during in local ~~a~~ction with sodium fluoride (Accumulation of
 P^{32} and Ca^{45} radioisotopes, action of phosphatase^e in
the teeth, and the ~~a~~solubility of enamel in acids)."
Odessa, 1958, 11 pp (Min of Higher Education UkSSR.
Odessa State Univ im I.I. Mechnikov) 100 copies (KL, 23-58, 10h)

SAPOGOVSEKAYA, T.I.

Using P32 and Ca⁴⁵ in studying mineral metabolism of the periodontium and teeth in healthy animals and those with pyorrhea alveolaris. (MIRA 11:3)
Stomatologia 37 no.1:22-26 Ja-F '58.

1. Iz biokhimicheskogo otdela (zav. - kandidat meditsinskikh nauk Yu.A.Petrovich) Ukrainskogo nauchno-issledovatel'skogo instituta stomatologii (dir. - starshiy nauchnyy sotrudnik M.I.Kukhareva)
(MINERAL METABOLISM) (GUMS--DISEASES)

PODOROZHNYAYA, R.P. (Odessa); SAPOGOVSKAYA, T.I. (Odessa)

Age-related changes in the nitrogen content of the parotid gland
saliva. Probl.stom. 6:66-72 '62. / (MIRA 16:3)
(PAROTID GLANDS) (NITROGEN IN THE BODY) (SALIVA)

PETROVICH, Yu.A. (Odessa); SAPOGOVSKAYA, T.I. (Odessa); KONOVELS, V.M.
(Odessa); PODOROZHNYA, R.P. (Odessa); TRIFONOVA, V.P. (Odessa)

Entry of labeled atoms into the tissues of the tooth and the
paradentium. Probl.stom. 6:132-137 '62. (MIRA 16:3)
(TEETH) (ISOTOPES--PHYSIOLOGICAL EFFECT) (GUMS)

USSR/Cultivated Plants. Fruits. Berries.

M

Abs Jour: Ref Zhur-Biol., No 5, 1958, 20481.

Author : N.V. Kovalev, D.K. Sapon

Inst : The Shreder Fruit and Berry Institute.

Title : The Problem of Methods of Evaluation for Fruit Culture
Stock. (K voprosu o metodakh otsenki podvoyev u plodovykh
kul'tur).

Orig Pub: Dokl. AN UzSSR, 1956, No 10, 45-49.

Abstract: To determine the compatability of stocks, the Shreder Fruit and Berry Institute in 1953 grafted simultaneously one, two, and three stocks to a single graft slip. The Sievers seedling stock with the golden winter Parmen graft (I) produced a sturdy intergrowth of the components and developed uniformly with each other; at the end of the second year the growth of the skeleton and overgrowing roots

Card : 1/2

USSR/Cultivated Plants. Fruits. Berries.

M

Abs Jour: Ref Zhur-Biol., No 5, 1958, 20481.

showed a fair increase. The dusen and paradise stock with graft I yielded a sturdy coalescence, although the roots of these stocks are activated later than the stock of Sievers apple seedlings. The stock of turkman apple runners with graft I coalesced solidly, but at the end of the second year of growth only fibril roots developed, no tap root growth occurred. With double or triple graftings to a single graft, Sievers apple stock and one or two roots of dusen or paradise stock were grafted. The growth and development of the underground plant mass with double or triple graftings is ordinarily better than with a single stock, the acclimatization of the graft with two or three stocks being 25-40% higher than with a single stock of the same species.

Card : 2/2

SAFON, I.P.; GLAZMAN, Y.M.

Effect of nonionogenic surface-active agents on the stability of lyophobic sols. Part 2: Coagulation of a colloidal solution of silver iodide. Koll. zhur. 27 no.4:601-604 11-12 '65.
(MIRA 18:12)

1. Tekhnologicheskii institut legkoy promyshlennosti, Kiev.
Submitted April 1, 1964.

GLAZMAN, Yu.M.; KRASNOKUTSKAYA, M.Ye.; SAPON, I.P.,

Coagulation zones in the course of action of surface-active
agents on hydrophobic sols. Koll. zhur. 27 no.2:290 Mr-Apr '65.
(MIRA 18:6)

1. Tekhnologicheskij institut legkoy promyshlennosti, Kiev.

S/081/62/000/001/060/067
B162/B101

AUTHORS: Sapon, M. F., Dorogochinskiy, A. Z.

TITLE: Thermal stability of distillates of various origins

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 1, 1962, 449, abstract
1M182 (Tr. Groznensk. nef. n.-i. in-t, no. 11, 1961, 38 - 52)

TEXT: The 50°C thermal stability of 150-200°C, 200-250°C, 250-300°C and 300-350°C fractions separated from a non-sulfur Groznyy paraffin-base petroleum mixture, an Eastern sulfur petroleum mixture and from the mazut thermal cracking products of these types of petroleum on semi-industrial Groznii apparatuses with columns having 28 theoretical plates, was investigated on an NCA(LSA) apparatus. The thermal stability was evaluated from the quantity of residue and resin in the fractions after oxidation. The catalytic action of metals (electrolytic copper, 12XH3A(12KhNZA) steel and BE-24 (VB-24) bronze) on the oxidation process was demonstrated. It is shown that for narrow rectified and cracking fractions of non-sulfur and sulfur petroleum the principles determining the quantity of residue forming during oxidation cannot be explained by the content of unsaturated hydro-

Card 1/2

Thermal stability of...

S/081/62/000/001/060/067
B162/B101

carbons, resins or sulfur compounds in the initial fractions. The magnitude of the resin content in the oxidized fractions is greatly affected by the quantity of resinous substances contained in the fractions, the oxidation temperature and the catalytic action of the metals. Sulfur compounds stimulate resin formation. [Abstracter's note: Complete translation.]

Card 2/2

AMERIK, B.K.; MAYDEBOR, L.K.; SVETOZAROVA, O.I.; ROMANKOVA, I.K.;
SAPON, M.F.; MUTOVIN, Ya.G.; ZHDANOVA, V.V.; LEVASHOVA, E.P.;
GOLOVENKO, A.M.; KOZLOVA, A.S.

Refining sour mazuts. Trudy GrozNII no. 15:42-48 '63.

(MIRA 17:5)

AMERIK, B.K.; MAYDEBOR, L.K.; SVETOZAROVA, O.I.; MATAYEVA, B.V.;
ROMANKOVA, I.K.; GOLOVENKO, A.M.; SAPOON, M.F.; ZHDANOVA, V.V.
LEVASHOVA, E.P.; KOZLOVA, A.S.; ZINOV'YEV, V.R.; KONINA, V.F.;
MUTOVIN, Ya.G.

Refining sweet mazuts. Trudy GrozNII no. 15:49-58 '63.

(MIRA 17:5)

AMERIK, B.K.; MUTOVIN, Ya.G.; SAPON, M.F.; KUNDRYUTSKAYA, N.Kh.

Pilot plant for the two-stage destructive vacuum distillation
of oil residues. Trudy GrozNII no. 15:59-67 183. (MIRA 17:5)

Source: Matematical Reviews,

Vol 11 No. 4

Sapozhnikov, O. M. Application of the method of boundary value problems to the solution of the problem of plates, the plane problem of prismatic bars. Akad. Nauk SSSR, Ser. Tekhn. Nauk, No. 13, 501-512 (1949). (Russian)

The paper contains several boundary value problems in a plane. The method of boundary value problems is applied to a particular problem of the theory of plates. The essence of the idea is to replace the boundary value problem by a problem whose boundary, in part, is unknown. The clamping of the plate introduces unknown boundary conditions. The clamping of the plate is subjected to a load of intensity q along the y -axis. The distribution q is taken in the form of a function $q(x, y)$. The solution for the deflection $w = w(x, y, q)$, where the q parameters can be selected so that the boundary conditions in the original problem and the boundary conditions in the original problem (the plate deflection problems) are satisfied. The plate is fixed rigidly along the y -axis. The plate is subjected to a uniform radial pressure p along the y -axis.

SAPONDZHYAN, O. M.

Doc Tech Sci

Dissertation: "Certain Problems in the Theory of Bending Thin Plates." 14/2/50

Central Sci Res Inst of Industrial Constructions - "TsNIPS".

SO Vecheryaya Moskva
Sum 71

SAPONDZHIAN, O.M.

Bending of a polygonal plate with free support. Izv. AN Arm. SSR.
Ser. FMET nauk 5 no.2:29-46 '52. (MLRA 9:8)

1. Yerevanskiy politekhnicheskiy institut imeni K. Marksa.
(Elastic plates and shells)

SAPONDZHANYAN, O. M.

Sapondžyan, O. M. Bending of an elliptic plate. Akad. Nauk Armyan. SSR. Izv. Fiz.-Mat. Estest. Tehn. Nauki 7, no. 5, 19-43 (1954). (Russian. Armenian summary)

1 - F/R

The problems concerned with small transverse deflections of a clamped isotropic elliptic plate are solved for the following types of loading: a) A uniform load distributed over the area of an ellipse confocal with the given ellipse bounding the plate; b) a uniform load distributed over the area of a circle whose center coincides with the center of the ellipse; c) a uniform line load distributed at only one of the principal diameters of the ellipse. The method of solution is that used by N. I. Muskhelishvili [Some basic problems of the mathematical theory of elasticity, 3rd ed., Izdat. Akad. Nauk SSSR, Moscow, Leningrad, 1949 (1953), § 64; MR 11, 626; 15, 370] to solve the plane problems of elasticity for an elliptical region.

I. S. Sokolnikoff (Los Angeles, Calif.).

gyl

SAPONDZHYAN, O. M. ✓
~~SAPONDZHYAN, O. M.~~

Sapondzhyan, O. M. Bending of a semi-elliptic plate.
 Akad. Nauk Armyan. SSR. Izv. Fiz.-Mat. Estest. I ≈ F/W
 Tehn. Nauki 7 (1954), no. 6, 27-34 (1955). (Russian.
 113 Armenian summary)

This is an improvement on Galerkin's solution of the problem of small transverse deflections of a uniformly loaded semi-elliptic plate clamped along its curvilinear boundary and simply supported along the rectilinear boundary [Elastic thin plates, Gosstrolizdat, Leningrad-Moscow, 1933, pp. 340-343]. Since the deflections of a clamped elliptic plate carrying a uniform load p above its principal diameter and $-p$ below the diameter are the same as in the problem treated by Galerkin, the method of solution employed by the author in the paper reviewed above is applicable. The formulas deduced by him are more tractable than Galerkin's. I. S. Sokolnikoff.

gyp *g*

Yerevan Polytech Inst.

SAPONDZHYAN, O.M.

Bending of a fastened plate subjected to loads uniformly distributed on a circular area. Izv. AN Arm. SSR. Ser. FIZMATEK. 9 no.5:61-75 '56. (MLRA 9:11)

1. Yerevanskiy politekhnicheskii institut imeni K. Marksa.
(Elastic plates and shells) (Flexure)

SAPONDZHYAN, O.M.

Series development of the Christoffel-Schwarz mapping functions.
Izv. AN ARM.SSR.Ser.FMET nauk 9 no.9:97-104 '56. (MLRA 10:2)

1. Yerevanskiy politekhnicheskiy institut imeni K.Marksa.
(Functions of complex variables)

SA POND, G. M.

Report presented at the 1st All-Union Congress of Theoretical and Applied Mechanics,
Moscow, 27 Jan - 3 Feb '60.

234. G. I. Ponomarev (Moscow): Large deflections of reinforced shallow cylindrical shells.
235. E. P. Babitskiy (Moscow): The problem of stability of shells under the action of a point load.
236. A. I. Babitskiy (Moscow): Flow and consolidation of sands under the action of seismic forces.
237. Yu. N. Izrael (Moscow): Creep.
238. E. N. Kuznetsov (Leningrad): Some problems in the theory of stability concerning the design of rock foundations.
239. E. N. Kuznetsov (Leningrad): Some differential equations of structural mechanics.
240. G. I. Babitskiy (Moscow): On the propagation of elastic waves in a half-space.
241. G. I. Babitskiy (Moscow): Propagation of disturbances in continuous media.
242. V. G. Belykh (Izrael): Earth pressure on flexible retaining walls.
243. V. L. Puzikov (Leningrad): On the pressure of a punch on an elastic half-space.
244. E. A. Rykova (Moscow): Types of high molecular and dielectric structures and their characteristic mechanical properties.
245. E. A. Rykova (Moscow): On the influence of the nature of the punch on the nature of the stress.
246. V. G. Belykh (Moscow): The application of the method of homotopy to the solution of some non-linear problems of the theory of elasticity.
247. A. I. Babitskiy (Moscow): Some three-dimensional problems of elastostatics in rigid, plastic solids.
248. M. I. Kuznetsov (Moscow): On the application of the Galerkin-Adomian method to the problem of a creep theory of materials.
249. M. I. Kuznetsov (Moscow): Some problems of the theory of a creep theory of materials.
250. A. I. Babitskiy (Moscow): Design of viscoelastic beams.
251. E. N. Kuznetsov (Leningrad): The experimental study of the stability of rock foundations.
252. G. I. Babitskiy (Moscow): The determination of the deformation of a thin elastic plate by the method of successive approximations.
253. V. G. Belykh (Moscow): Torsion of anisotropic prismatic bars of elongated cross section.
254. V. G. Belykh (Moscow): The impact of a double punch on a half plane.
255. E. N. Kuznetsov (Leningrad): The use of similarity considerations for improving the convergence in the design of shells by successive approximations.
256. E. N. Kuznetsov (Leningrad): Stability of cellular structures built on soft ground.
257. E. N. Kuznetsov (Moscow): Bending of thin kirp-pole plates supported by an elastic layer of finite thickness.
258. E. N. Kuznetsov (Moscow): Plastic bending of plates into cylindrical shells.
259. A. P. Galka (Moscow): A beam on a two-layer half space beyond the elastic limit.
260. E. N. Kuznetsov (Leningrad): Some problems of creep and consolidation of saturated soils.
261. M. G. Kuznetsov (Moscow): Determination of the natural frequencies of plates of constant and variable thickness.
262. E. N. Kuznetsov (Leningrad): Dynamic problems of the failure of retaining walls and soil foundations under impact loads.
263. E. N. Kuznetsov (Leningrad): Solution of some dynamic problems of structures supported by the action of finite parameters.
264. E. N. Kuznetsov (Moscow): On some problems of the theory of plasticity and soil consolidation.
265. E. N. Kuznetsov (Leningrad): On a class of solutions of some dynamic problems in plasticity.
266. E. N. Kuznetsov (Moscow): The effect of internal friction on the stability of beams and plates under impulsive loading.
267. E. N. Kuznetsov (Leningrad): Stresses in allotropic shells subjected to internal pressure.

S/124/63/000/002/028/052
D234/D308

AUTHOR: Sapondzhyan, O.M.

TITLE: Application of Saint-Venant's principle to the solution of the problem of the theory of elasticity

PERIODICAL: Referativnyy zhurnal, Mekhanika, no. 2, 1963, 13-14, abstract 2V83 (Sb. nauchn. tr. Yerevansk. politekhn. in-t. Yerevan, 1960, 273-281)

TEXT: For an approximate solution of the problem of elastic bending of thin plates supported along the edge, the author sets out a form of deflection satisfying the equation of bending and the boundary condition $w = 0$. The static boundary condition is approximately satisfied on the basis of Saint-Venant's principle: the boundary of the plate is divided into n segments on which the conditions of resultant moments becoming zero are formulated. Indeterminate constants are introduced into the solution in order to satisfy these conditions. Solutions with two constants are obtained for a rectangular and an elliptic plate subject to constant pressure. A similar

Card 1/2

Application of Saint-Venant's ...

S/124/63/000/002/028/052
D234/D308

method is applied to the problem of torsion, in which the corresponding integral boundary conditions on the segments of the boundary have the form

$$\int \frac{\partial \varphi}{\partial s} ds = 0, \quad \int x \frac{\partial \varphi}{\partial s} ds = 0, \quad \int y \frac{\partial \varphi}{\partial s} ds = 0$$

where φ is the stress function.

[Abstracter's note: Complete translation]

Card 2/2

SAPONDZHYAN, O.M.

Upper and lower bound approximations for the problem concerning the bending of a supported plate. Dokl. AN Arm. SSR 35 no.4:161-165 '62.

(MIRA 17:1)

1. Chlen-korrespondent AN Armyanskoy SSR. Yerevanskiy politekhnicheskii institut imeni K. Marksa.

SAPONDZHYAN, O.M.

Flexure of a thin rectangular plate. Dokl. AN Arm. SSR no.3:137-141
'63. (MIRA 17:1)

1. Yerevanskiy politekhnicheskoy institut imeni K.Marksa. Chlen-korrespondent AN Armyanskoy SSR.

SAPONDZHIAN, S. O.

Sapondzhyan, S. O. - "Toward the derivation of double secondary acetylene glycols,"
Report 3, Izvestiya (Akad. nauk Arm. SSR), Fiz.-Matem.,
yestestv. i tekhn. nauki, 1948, No. 3, p. 269-73 — Summary in
Armenian — Bibliog: p. 272

So: U-3566, 15 March 53, (Letopis 'Zhurnal 'nykh Statey, No. 13, 1949)

SAPONDZHIAN, S.O.

U S S R

Determination of acetals in wine. S. O. Sapondzhian and Kh. S. Gevorgyan. *Vinodeliya i Vinopromyshlennost'* S.S.R. 13, No. 1, 13-16 (1953).—From a neutral wine soln. free aldehydes are removed by direct distn. and bound aldehydes are removed after hydrolysis with 0.1N HCl. In the presence of a high amt. of alc. (30-60%) the hydrolysis rate of acetals is increased. For the analysis of fresh wine 1 ml. of 0.1N HCl and 5-6 ml. hydrolysis are sufficient; when wine contains 16-20% alc. acetals/l. 10-15 ml. of the achi and 10-15 min. hydrolysis time are required. Wierbicki

SAPONDZHYAN, S.O.

USSR.

Effect of heavy metals on the process of the formation of sherry wine. S. O. Sapondzhyan and Kh. S. Gevorgyan. *Vinodelia i Vinogradovodstvo*, R. 13, No. 11, 18-22 (1953).—The effects of Fe and Cu were studied on the formation of sherry wines. From 7.2 to 25 mg./l. of FeCl_3 (I), $\text{Fe}_2(\text{SO}_4)_3$ (II), FeSO_4 (III), $(\text{NH}_4)_2\text{Fe}(\text{C}_2\text{O}_4)_2$ (IV), CuSO_4 (V), and a mixt. of III and V were added to wine before the addn. of sherry yeasts, and the chem. compn. and organoleptic properties of the wine were then studied. Wine with added Fe^{+++} contained increased amts. of aldehydes (560 and 825 mg./l. after the addn. of 12 and 25 mg./l. either I or II, resp.). The control contained 500 mg. aldehydes/l. With 12 mg./l. of III (Fe^{++}), the aldehydes increased to 893 mg./l. A similar effect was obtained by adding Cu^{++} . Wine to which 10 mg. V and 12 mg. III/l. were added contained 825 mg. aldehydes/l. more than the control; no particular effect was noticed in the case of IV. The highest amt. of acetals (168-171; control 126 mg./l., resp.) was present in the samples with 9.6 and 7.2 mg. V/l. added. In the presence of I and IV the amt. of acetals was lower as compared with the control. Org. esters in all exptl. samples increased over the control (180 mg./l.). Addn. of I, II, III, and V, as well as demetallization of the wine, increased the pH from 3.55 (control) to 3.8-3.9, while IV increased it to 5.44. Only the addn. of IV increased the titratable acidity (0.1-7.2, control 3.7 g./l., resp.). The amt. of alc. in all cases decreased to 14.6-14.8 vol. % (control 15.05%). In the presence of Fe^{+++} and Cu^{++} the oxidation-reduction potential increased first and then gradually decreased; in the presence of Fe^{++} and IV it decreased from the beginning of the expt. In all cases the wine quality was improved; it is particularly true in the case of the Cu^{++} addn.

E. Wiehlich

BASKAKOV, Yu.A.; SAPOROVSKAYA, M.B.

New method of quantitative determination of 4-chlorobutynyl ester
of the N-3-chlorophenylcarbamic acid. Khim. prom. no.10:46-47 0 '61.
(MIRA 15:2)

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Chemistry of selenophene. Part 37: Synthesis of 5-(2'-selenienyl)
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1444-1446 My '62. (MIRA 15:5)

1. Moskovskiy gosudarstvennyy universitet.
(Selenium compounds) (Pyrazole)

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Izv. AN SSSR Ser. Khim. no. 5:947-948 My 1964. (MIRA 17:6)

1. Institut elementoorganicheskikh soysdineniy AN SSSR.

NITULESCU, I., ing.; MOCANU, Ana, ing.; FILIPEANU, Livia, ing.; ANGHEL,
Lucia, geolog; SAPORTA, Ecaterina, ing.

Quantitative mineralogical analysis of technological ore
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Saposhnikov, L.K.

USSR/Scientific Organization--Conferences

Card 1/1 Pub. 86--10/35

Authors : Dement'ev, G. P.; Kumari, E. V.; and Saposhnikov, L. K.

Title : The work of Soviet ornithologists

Periodical : Priroda 44/1, 67--69, Jan 1955

Abstract : A account is given of the Second Conference of Ornithologists held in May of 1954 at the Tallin Institute of Zoology and Botany of the Academy of Sciences of the Estonian SSR. Various papers were read, the principle theme being the migration of birds and a study of the habits of birds with a view to solving some problems affecting the people's economy.

Institution :

Submitted :

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"On the Exactness of Complex Climatic Characteristics et. for different Periods." In Book - Works of the Scientific Research Institute on Aeroclimatology, published by Hydrometeorology Publishing House, Moscow, 1958.

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"Knowledge of the Characteristics of Climate as it Effects the Growth Period of Corn and Wheat," In Book - Works of the Scientific Research Institute on Aeroclimatology, published by Hydrometeorology Publishing House, Moscow, 1958.

SAPOSNIC, A.; LEON, Ionescu

The therapeutic effect of parenteral administration of Olanesti water on some allergic skin diseases. Med. int., Bucur. 7 no.4: 149-150 Oct-Dec 55.

1. Institutul de Endocrinolog. Prof. C. I. Parhon.
(SKIN DISEASES, therapy
Olanesti spring water, in allergic disord.)
(MINERAL WATER, ther. use
Olanesti spring water in allergic skin dis.)

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Trial therapy of epidemic hepatitis. Probl. ter., Bucur. 3:
213-229 1956.

(HEPATITIS, INFECTIOUS, therapy
dimercaprol, mineral water & vitamin B 12.)

(DIMERCAPROL, ther. use
hepatitis, infect.)

(MINERAL WATER, ther. use
hepatitis, infect.)

(VITAMIN B 12, ther. use
hepatitis, infect.)

Sapoznic AL

✓ The action of isotonic sulfurous water on the functions of the adrenal gland. St. M. Milcu, and Al. Sapoznic. *Comun. acad. rep. populare Romne* 1, 341-3(1958).—In acute expts. the intraperitoneal injection of 2.5 cc. of sulfurous water in rats weighing 100–150 g. causes a stimulation of the adrenal glands. Continued administration of the same injection also had as a considerable increase of vitamin D. This increase is not the result of an accumulation of vitamin D, but represents an intensification in the synthesis of vitamin D by the adrenal cortex. The increase in the synthesis of vitamin D takes place through stimulation of the liver. E. M.

2

SAPOSNIE, AI

The comparative content of saline in the water and mineral
substances in water is shown in the following table.

TABLE 1. Comparative content of saline in the water and mineral
substances in water.

TABLE 2. Comparative content of saline in the water and mineral
substances in water.

TABLE 3. Comparative content of saline in the water and mineral
substances in water.

TABLE 4. Comparative content of saline in the water and mineral
substances in water.

TABLE 5. Comparative content of saline in the water and mineral
substances in water.

TABLE 6. Comparative content of saline in the water and mineral
substances in water.

SAPOSNIC, A.

SAPOSNIC, A. Modification of the immunological reactivity under the influence of thyroxine and iodinated proteins. p. 839. Vol. 6, no. 6, June 1956. COMUNICARILE. Bucuresti, Rumania.

SOURCE: East European Accessions List (EEAL) Vol. 6, No. 4--April 1957

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The influence of iodated casein on albuminous fractions in the serum of rabbits inoculated with antityphoid paratyphoid vaccine.

P. 1389 (Academii Republicii Populare Române. Comunicarile. Vol. 6, no.12, Dec. 1956
Bucuresti, Rumania)

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Uncl.

SAPOSNIKOV, G. V.

COUNTRY : Czechoslovakia
CATEGORY :

H-32

ABS. JOUR. : *izkhimi*, No. 21 1959, No.

76936

AUTHOR : Sapoznikov, G. V.

INST. : Not given

TITLE : The Dyeing of Viscose Fibers in Bulk

ORIG. PUB. : *Chem Prumysl*, 8, No 8, 438-442 (1958)

ABSTRACT : An investigation of the factors causing a decrease in the brightness of the color of aqueous and viscose suspensions of pigments and vat dyes used in the dyeing of viscose fibers in bulk in the presence of the mordants Invadan 1 and Erifor O has shown that the presence of the above-named mordants in the suspensions to the extent of 20-100% of the wt of the dye leads to the agglomeration of the dye particles with a resultant deterioration of the quality of the

CARD: 1/2

PROCESSING AND PROPERTIES INDEX

The liquefaction of helium... V. G. ...
 Near 10, 800-2(1980) ...
 The production of 1 l. of liquid H₂ consumed at least 6 l. of
 liquid N₂, 6 l. of liquid air and 25 kw.-hrs. of energy for
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 Frank Marsh.

ASM-ISA METALLURGICAL LITERATURE CLASSIFICATION

FROM BOWEN

REEL 17 ONE ONE 151

A new refrigerant difluorodichloromethane (Freon-12).
 V. Sapozhnikov, *Slojnický Ohsor* 10, 380-05 (1939);
Chem. Ohsor 15, Abstracts 213.—S. compared the properties of CHF_2Cl , CF_2Cl_2 , CF_3Cl and CF_3Br and describes the use of CF_2Cl_2 as a refrigerant in Czechoslovakia.
 Frank Mareš

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